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COMPUTER DICTIONARY

TENTH EDITION

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COMPUTER DICTIONARY

10TH EDITION

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Wiley Publishing, Inc.

pointer on-screen as one uses his or her hand or fingers to rotate a ball on a trackball. Unlike a mouse, a trackball is used in the keyboard or in a case near the keyboard. Unlike a mouse, a trackball does not require a flat, clean surface to operate; as a result, trackballs are often used on cluttered or notebook computers. See *pointing device*, *clip-on pointing device*, *light pointing device*, *shop-on pointing device*.

buffering A hard disk design feature in which the entire contents of a hard disk are read into a memory area, and then as much of the information as is requested by the hard disk controller and host adapter. Track buffering reduces the need for interleaving, so all data is read from the hard disk. Most Enhanced Small Device Interface (ESDI) drives are track-buffered) should be considered factors of 1.

button A pointing device that enables the user to move the mouse pointer by pressing a finger around on a touch-sensitive surface. To click, one taps his or her finger on the surface or press a button.

bits per inch (tpi) A measurement of the storage density of magnetic disks, floppy disks. The greater the tpi, the more data the disk can hold. In DOS, double-density 5.25-inch floppy disks are rated at 48 tpi, and high-density 3.5-inch floppy disks are formatted with 96 tpi. High-density 3.5-inch floppy disks are formatted with 135 tpi.

track seek time The time a floppy disk drive requires to move the read/write head from one track to the next. Track-to-track seek time is much less than the time required to access data at a particular track.

feed A printer paper-feed mechanism in which continuous paper is pulled into and through the printer's sprocket wheel. The sprockets fit into the sprocket holes on the left and right edges of the paper. Dot-matrix printers non-

tractor-feed printers require one to spend time carefully separating the pages after printing.

trademark A form of intellectual property (IP) protection that is granted to a word, phrase, symbol, or design, or combination of these that uniquely identify the source of goods from competitors. (A similar form of protection, called a service mark, is available to companies that provide services rather than goods.) A firm that first uses a trademark possesses the right to register it with a national trademark office. Once registration is in hand, the firm can more easily prevent its competitors from emulating the protected trademark. Unlike copyrights and patents, trademarks are granted in perpetuity as long as they are in continued use. See *copyright*, *intellectual property (IP)*, *patent*, *trade secret*.

trade secret A form of intellectual property (IP) protection that enables firms to protect knowledge or techniques that are essential to their capability to compete effectively. Unlike patents, trade secrets are not subject to time limitations, and the underlying knowledge or technology need not be disclosed in a formal application. However, trade secret protection ceases to exist the moment the secret is made public, even by illegal means. In the United States, trade secret protection is governed by state law rather than federal law and is subject to certain restrictions, such as the right of users to reverse-engineer a product to gain access to knowledge that is not subject to trade secret protection. See *intellectual property (IP)*, *patent*, *reverse engineering*.

traffic The volume of messages sent over a network.

transactional application In a local area network (LAN), a program that creates and maintains a master record of all the transactions in which network participants engage, such as filling out invoices or time-billing forms. If a system crash results in the loss of data, this record can be used to

transaction processing system See *TPS*.

transceiver Concatenation of transmitter and receiver. 1. In local area networks (LANs), an adapter that enables a workstation to connect to the network cabling. 2. In wireless wide area networks (WANs), a modem that can send and receive data via radio frequencies. See *PD4*.

transducer A device that converts a detectable physical phenomenon, such as sound, pressure, or light, into electronic signals that can be processed by a computer.

transfer rate The number of bytes of data that can be transferred per second from a disk to the microprocessor after the read/write head reaches the data. The maximum transfer rate is limited by how fast the disk rotates and the areal density of the data on the disk (or how fast data passes under the drive head). These inflexible hardware limitations can be overcome by caching disk information. See *access time*, *ESDI*, *hardware cache*, *SCSI*.

transform and lighting processing (T & L) In 3-D gaming adapters, a hardware capability that dramatically improves three-dimensional processing performance by taking over display tasks that would otherwise have to be performed by the computer's CPU.

transient See *surge*.

transient command See *external command*.

transistor An electronic device with three connectors that can be used for switching or amplification. Invented at Bell Laboratories in 1947, transistors are simple semiconductor devices that provide an inexpensive, low-power replacement for the bulky, power-consuming, and unreliable vacuum tubes that were used previously for amplification and switching purposes in electronic circuits.

transistor-transistor logic (TTL) moni-

TTL monitors work only with Hercules and MDA video adapters; they have been replaced by monitors that conform to Video Graphics Array (VGA) and Super VGA display standards.

transition effect In multimedia production, an effect that is added to add visual interest to a transition between content segments. Examples of transition effects include fade-outs, barn doors, wipes, and left-to-right slide-ins.

translate To convert a data file from one file format to another, or to convert a program from one programming language or operating system to another.

Transmission Control Protocol See *TCP*.

Transmission Control Protocol/Internet Protocol See *TCP/IP*.

transmitter In push media, a program that sends updated information to subscribers. An example is Castanet's Transmitter, which automatically downloads updates to Java programs installed on subscribers' computers.

transparency A see-through piece of acetate that can be displayed during presentations by overhead projection. Laser and inkjet printers can both print transparencies, but be sure to get the right kind of transparency material—inkjet transparency material will melt inside a laser printer.

transparency adapter A scanner attachment that allows one to scan slides and transparencies.

transparent A computer operation or entity that programmers have made invisible so that it does not have to be dealt with. A transparent computer function is present, but cannot be seen; a virtual computer function is not present, but can be seen. Microsoft Word, for example, inserts formatting codes in a document, but they are transparent—one sees only his or her formatted text. A random access memory